#### GENERAL QUESTIONS:

#### QUESTION 1 RESPONSES:

Yes, a national policy to promote improved mobility and safety in highway construction and maintenance is needed.

The National policy should be incorporated into regulation. However, this policy also needs to be mandated in other publications since not all local projects (private utility companies and contractors at the local level of municipalities) come under the direction of the Federal regulations. The States need to adopt this regulation into their standards, as well.

# QUESTION 2 RESPONSES:

No, Subpart J does not address congestion and delay issues, only safety.

All sections should be revised to reflect that maintaining reasonable traffic operations (as well as safety) should be a goal of the Traffic Control Plan.

## QUESTION 3 RESPONSES:

YES.

All are important factors, but those we consider most important to risk level are duration, ADT, and capacity reduction.

## QUESTION 4 RESPONSES:

YES

From all the definitions stated in this report, the work area is assumed to be in a traveled-way or roadway system. Occasionally, our members may encounter work zones that ARE NOT in a traveled-way or roadway system such as extending a beach 100 feet out and constructing a new boardwalk area as part of a hurricane protection plan. The area is considered a work zone with temporary traffic control devices and barricades. There are traffic control plans provided for this project. Although not for motorists, pedestrians and recreational bicycle users must be considered when planning a project of this nature. Also, a work zone can be located on a sidewalk or multi-use facility as well as on an improved or not improved shoulder-way within 10 feet of a paved edge of roadway. The point is, not all work zones are located in the roadway and it would be wise to recognize this.

If FHWA develops a common definition, it should be created with the input of all governmental agency types responsible for planning, designing, operating, enforcing, and monitoring traffic control plans.

We offer the following as a proposed definition to be considered:

"A work zone is defined as any area where work is being performed, and where conditions may be changed by the use of temporary traffic control devices, flaggers, police, or other authorized personnel. A work zone may be located in a roadway/highway or other public rights-of-way for the purpose of construction, maintenance, utility work, special events or traffic incident management. A work zone is typically marked by signs, channelizing devices, barriers, pavement

markings and/or work vehicles. It extends from the first warning sign or flashing lights on a vehicle to the END ROAD WORK sign or the last traffic control device. Work zones may or may not involve workers or equipment on or near the road. A work zone may be stationary (such as repairing a water line) or moving (such as re-striping the centerline); it may be short term (such as pothole patching) or long term (such as building a new bridge or adding new travel lanes.)"

TRANSPORTATION PLANNING AND PROGRAMMING QUESTIONS

#### QUESTION 5 RESPONSES:

Traffic control is generally considered and designed appropriately in the actual design process, although there are often some missing links. Phasing of construction activities in a way to minimize traffic delays and disruptions is a normal part of the design plan. However, there is usually no one in the process responsible for looking at the complete transportation system to assess the cumulative impact of multiple work zones occurring simultaneously on a street system, much less the entire multi-modal network. Also, the persons responsible for routine operations and maintenance of the transportation system are typically NOT involved in the planning and development of work zone plans, nor are they even aware when these projects will be implemented. This is especially true where there are multiple transportation agencies involved within a jurisdiction, such as state highway projects occurring within a city or county jurisdiction.

In developing utility and roadway widening projects, delays can be minimized by providing total road closures in the affected area rather than having daily operations of stopping or flagging traffic. Excessive delays during non-work hours, caused by "safety" measures left in place from construction or maintenance activities need to be considered in any plan.

## RESPONSES TO QUESTION 6:

Cross cutting policy issues need to be addressed as completeley as possible. Investing money and time in the planning phases will save time in the long run. However, the processes should facilitate the coordination and information sharing between agencies and utilities that is necessary to properly manage work zones across an urban transportation system but the processes should NOT attempt to manage individual projects or specific construction/maintenance programs.

Yes, if long-term impacts on transportation system capacity are expected with these projects. Traffic/congestion is increasing nationwide. Therefore, investing time to investigate life cycle costing and material durability issues could mitigate the need for complete closures in the future.

Yes, if long-term impacts on the transportation system capacity are expected with these projects.

Yes, if long-term impacts on transportatin system capacity are expected with these projects.

### QUESTION 7 RESPONSES:

Probably not much is available now. Most planning agencies don't routinely work in near-term timeframes and don't possess the level of road or corridor detail that is appropriate for project-level planning and analysis.

In both instances, current and reliable system-wide operating data would be needed to support practical and feasible analysis, along with experienced design and construction personnel on staff that understand the actual construction and/or maintenance projects and associated traffic control issues and needs.

Project designers should consider different strategies and practices that may lead to reductions in the need for recurrent road construction and maintenance work, the duration of work zones and the disruption caused by work zones. Examples of such considerations include life-cycle cost analysis, alternative project scheduling and design strategies, such as full road closures and night time work, using more durable materials, coordinating road construction, estimation of user costs/impacts/ risk and reward sharing with contractors, and constructability reviews for projects.

PROJECT DESIGN FOR CONSTRUCTION AND MAINTENANCE QUESTIONS

#### QUESTION 8 RESPONSES:

FHWA should develop good educational materials and actively disseminate them through an effective education outreach program for all levels of government agencies. Risk and reward sharing with designers and contractors has also proven to encourage forward thinking.

These considerations need to be assessed early in the conceptual design process so that the designers know the goals and constraints under which they will be working.

## QUESTION 9 RESPONSES:

User cost is one of many important factors which measures access to alternative means to design and implement work zones.

User cost is a useful measure to access alternative means to design and implement work zones. It is a factor which should be individually weighted for each project on a case-by-case basis.

YES, but only on selected projects of regional impact.

Whatever measures are important to system users and can be reasonably estimated for evaluation.

## QUESTION 10 RESPONSES:

The telecommunications act and all other federal legislation dealing with public and private utility/communications use of transportation rights-of-way should require all these agencies (and their contractors) to meet all work zone standards. In addition, the responsible government agency with ownership and authority for that right-of-way should have the utility/communication agencies, ichluding the ability to recover costs associated with these services necessary to maintain mobility and safety in the public transportation system.

MANAGING FOR MOBILITY AND SAFETY IN AND AROUND WORK ZONES RESPONSES

# QUESTION 11 RESPONSES:

Yes, but only on major work zones of regional impact.

All reasonably available and effective tools should be considered by the TCP designer and operator. (Specifically, the use of ITS technologies and Traffic Operation Centers (or their equivalent) monitoring practices.)

By including transportation system operators and maintainers in the project planning and design process.

QUESTION 12 RESPONSES:

Security aspects should be integrated with and coordinated with other project elements. Security regarding critical infrastructure elements (bridges, tunnels, etc.) needs to be incorporated in the TCP process. Use of ITS features (i.e. CCTV), if available, need to be incorporated in the TCP planning. This would allow rapid assessment of security issues within the work zone in the affected area.

#### QUESTION 13 RESPONSES:

A TCP should provide for the mobility and safety of all legitimate system users in a transportation construction or maintenance project, IF REASONABLY POSSIBLE. If ADA requirements cannot be reasonably provided, then ADA requirements should be allowed to be revised or removed and alternate provisions should be made whihc may include blocking off the area to pedestrians and providing an alternate route.

## QUESTION 14 RESPONSES:

Yes, more flexibility should be allowed on who can develop a TCP, but unput should be included by all agencies that will be affected in operating and maintaining the project. The matter of approving the TCP should remain with the local municipalities and state DOTs to ensure that TCPs are developed using current standards and are following work zone safety practices.

Yes. There needs to be a system of accountability, but only for those who design major projects of regional impact. All others should be given adequate training and information as has been done in the past.

#### QUESTION 15 RESPONSES:

Yes, but again, only for major projects of regional impact.

PUBLIC OUTREACH AND COMMUNICATIONS

## QUESTION 16 RESPONSES:

Through the normal design and public involvmenet process, recommendations for traffic control should be provided for information and comment. Once a plan is developed, it should be made available to the public by all available means, especially through the Internet.

The Agency responsible for managing the project should ensure that it is done and well done. It can be kept in-house or out-sourced as resources allow.

#### QUESTION 17 RESPONSES:

Yes, if the project is of a major nature with major duration as determined by the responsible agency.

The plan should contain all relevant elements including the type and quantity of information to be provided, the audiences to receive the information, the suggested communication devices, the timing of all communications, a process for feedback, and a process for evaluation of the plan's effectiveness, and contact information for all responsible parties.

ANALYZING WORK ZONE PERFORMANCE

#### **OUESTION 18 RESPONSES:**

Yes, but only in general terms. This should not result in an unreasonable burden or mandate to government agencies. A higher level of reporting can be required for major projects of regional significance.

This information could be beneficial in assessing the actual impact of work zones on mobility and safety, and the effect of specific strategies and techniques being used.

#### QUESTION 19 RESPONSES:

Only on selected work zones of major impact on a regional basis. Furthe reporting can be done, but only if performed by others or if the agencies are compensated for their increased reporeting costs. Requirements which would necessitate additional staffing for the local agencies would not be acceptable.

YES.

Delay, Speed, and Accidents.

QUESTION 20 RESPONSES:

Generally, Yes.

Volume, or exposure, is also a critical factor of evaluation. Field studies to evaluate existing field conditions are necessary to identify potential concerns.

Possibly.

It should be required for them to be included in the traffic control plan and construction processes for major projects of regional significance.